In the claims:

Please amend the claims as follows:

1. (Currently Amended) A feeding set ~~adaptor~~ comprising:

a first connector configured for attachment to an inflow line of an infusion set and a central pump engaging portion of an infusion set;

a second connector configured for attachment to an outflow line of an infusion set;

an infusion set comprising tubing configured for carrying a fluid and being attached to the first connector and the second connector, the tubing forming at least an inflow line and an outflow line; and

an anti-freeflow mechanism disposed in ~~communications~~ communication with the one of the first connector and the second connector, the anti-freeflow mechanism being disposed inside the tubing.

2. (Currently Amended) A feeding set ~~adaptor~~ according to claim 1, wherein the anti-freeflow mechanism is attached to and spaced apart from one of the first connector and the second connector.

3. (Currently Amended) A feeding set ~~adaptor~~ according to claim 1, wherein the anti-freeflow mechanism comprises a generally ball-shaped member configured for disposition in the tubing of an infusion set.

4. (Currently Amended) A feeding set ~~adaptor~~ according to claim 3, wherein the ball-shaped member is attached to one of the first connector and the second connector and spaced away from the connector to which the ball-shaped member is attached.

5. (Currently Amended) ~~A solution delivery system for disposal on an infusion pump comprising the feeding set adaptor according to claim 1, and further comprising an inflow line,~~ The feeding set according to claim 1 wherein the infusion set comprise a central pump engaging portion extending between the first connector and the second connector.

6. (Currently Amended) The ~~solution delivery system~~ feeding set according to claim 5, wherein the anti-freeflow mechanism is disposed in one of the inflow line, pump engaging portion and outflow line.

7. (Amended) The solution delivery system according to claim 6, wherein the anti-freeflow mechanism is attached to the second connector and disposed in the central pump engaging portion of the infusion set.

10. (Currently Amended) ~~The solution delivery system~~ The feeding set according to claim 5, wherein the pump engaging portion comprises at least one monitoring portion for optically monitoring pressure within the infusion set.

11. (Currently Amended) ~~The~~ A solution delivery system having a void therein configured for receiving a feeding set according to claim 10, ~~wherein the pump engaging portion further comprises~~ comprising at least one abutment member for engaging the feeding set ~~adaptor~~ to minimize movement of the monitoring portion when the pump engaging portion is worked by a pumping mechanism.

12. (Currently Amended) ~~The solution delivery system according to claim 11, further comprising an optical sensor disposed adjacent to the monitoring portion for determining pressure in the monitoring portion~~ A solution delivery system comprising a void configured for receiving a portion of a feeding set and an optical sensor disposed adjacent to feeding set, the optical sensor being configured for determining pressure in the feeding set when a feeding set is disposed in the void.

13. (Currently Amended) The solution delivery system according to claim 12, further comprising a feeding set having a monitoring portion, and wherein the optical sensor comprises an optical signal emitter ~~and an optical signal emitter~~ and an optical signal detector, and wherein the solution delivery system is configured so that at least a portion of the monitoring portion is disposed between the optical signal emitter and the optical signal detector.

14. (Original) The solution delivery system according to claim 13, wherein the monitoring portion is disposed between the optical signal emitter and the optical signal detector, so that it always occludes some light flow between the optical signal emitter and the optical signal detector.

15. (Original) The solution delivery system according to claim 13, wherein the monitoring portion is disposed between the optical signal emitter and the optical signal detector, so that it always allows some light flow between the optical signal emitter and the optical signal detector.

16. (Original) The solution delivery system according to claim 11, wherein the feeding set adaptor has at least one tube engaging member and wherein the abutment member of the pump engaging portion engages the tube engagement member of the feeding set adaptor to limit movement of the pump engagement portion.

17. (Original) The solution delivery system according to claim 16, wherein the at least one tube engaging member defines a recess, and wherein the abutment member comprises a collar configured for resting in the recess.

18. (Original) The solution delivery system according to claim 16, wherein the at least one tube engagement member comprises a first tube engagement member and a second tube engagement member disposed adjacent to each other with the monitoring portion extending therebetween.

19. (Original) The solution delivery system according to claim 18, wherein the pump engagement portion has a first abutment member disposed to engage the first tube engaging member and a second abutment member disposed to engage the second tube engaging member, the two abutment members being spaced apart and a distance therebetween constituting the monitoring portion of the pump engaging portion of the infusion set.

20. (Original) The solution delivery system according to claim 18, wherein the at least one tube engagement member further comprises a third tube engagement member and a fourth tube engagement member disposed adjacent to each other, and the pump engaging portion of the infusion set forming a second monitoring portion extending between the third tube engagement member and the fourth tube engagment member.

21. (Original) The solution delivery system according to claim 16, wherein the at least one tube engaging member and the at least one monitoring portion comprise a first monitoring portion and at least one tube engagement configured for disposition upstream from a pump rotor, and a second monitoring portion and at least one tube engagement member configured for disposition downstream from a pump rotor.

22. (Currently Amended) [The feeding set adaptor according to claim 1,] A feeding set adaptor comprising:

a first connector configured for attaching two lines of a feeding set,

an anti-freeflow mechanism disposed in communication with the first connector; and

~~further comprising~~ a sample cell formed as part of the ~~adaptor~~ first connector.

23. (Original) The feeding set adaptor according to claim 22, wherein the sample cell has a pair of side walls disposed at an angle between about 45 and 100 degrees from one another.

24. (Original) The feeding set adaptor according to claim 23, wherein the sample cell defines a conduit having at least two sides which are disposed at an angle of about 50 to 60 degrees from one another.

25. (Original) The feeding set adaptor according to claim 24, wherein the conduit has a cross-section which is an equilateral triangle.

26. (Original) The feeding set adaptor according to claim 25, wherein the conduit has a cross-section which is an inverted equilateral triangle, the sides extending downwardly and inwardly.

27. (Original) The feeding set adaptor according to claim 24, wherein the conduit has a cross-section which is diamond shaped.

28. (Original) The feeding set adaptor according to claim 22, wherein the sample cell has an outer wall which extends toward point, and a generally linear base extending outwardly from the point and disposed to allow light to flow through the base with minimal refraction.

29. (Original) A solution delivery system comprising the feed set adaptor according to claim 22, and further comprising a housing disposed adjacent to the sample cell.

30. (Original) The solution delivery system according to claim 29, wherein the housing is spaced apart from the sample cell so as to form an air chamber between the housing and the sample cell.

31. (Original) The solution delivery system according to claim 29, wherein the housing has a pair of sidewalls which are disposed at an angle of between about 45 and 100 degrees from one another.

32. (Original) The solution delivery system according to claim 31, wherein the housing further comprises a base disposed at an angle of about 50 to 60 degrees from each of the sidewalls.

33. (Original) A solution delivery system comprising the feed set adaptor according to claim 22, and further comprising a optical sensor disposed to project light into the sample cell.

34. (Original) The solution delivery system according to claim 33, wherein the optical sensor comprises an optical signal emitter and an optical signal detector, and wherein the sample cell is disposed between the optical signal emitter and the optical signal detector.

35. (Original) The solution delivery system according to claim 35, wherein the sample cell is configured to direct more light emitted from the optical signal emitter to the optical signal detector when the sample cell is at least partially filled with air.

Claims 36-90 (Canceled)

91. (Original) A method for monitoring pressure in an infusion set, the method comprising:

selecting a feeding set adaptor having a pump engaging portion of an infusion set disposed thereon and defining a monitoring portion; and

disposing the monitoring portion in an optical sensor to detect pressure changes in the monitoring portion by changes in the diameter of the monitoring portion.

92. (Original) A method for preventing freeflow in an infusion set, the method comprising:

selecting a feeding set adaptor having a pump engaging portion of an infusion set disposed thereon and defining a monitoring portion and an anti-freeflow mechanism configured to selectively stop fluid flow through the infusion set; and

disposing the anti-freeflow mechanism in the infusion set to selectively preclude fluid flow therethrough.

93. (Original) A method for detecting air bubbles passing through an infusion set, the method comprising;

selecting a feeding set adaptor having a sample cell formed thereon and having a pump engaging portion attached thereto;

passing solution through the sample cell; and

disposing the sample cell in an optical signal such that light is refracted differently when air is present in the sample cell than when solution is present in the sample cell to thereby determine the presence of air.

94. (Original) The method according to claim 93, wherein the method comprises emitting the light in a plane and positioning the sample cell so that a sidewall of the sample cell is at an angle less than normal to the plane.

Please add claims 95-108 as follows

95. (New) The feeding set adaptor of claim 22, wherein the anti-free flow mechanism is configured for disposition in one of the two lines of an infusion set.

96. (New) The feeding set adaptor of claim 22, wherein the sample cell is formed integrally with the first connector and is generally rigid.

97. (New) The method according to claim 91, wherein the method comprises disposing the monitoring portion between an optical emitter and an optical detector to measure changes in the size of the tube.

98. (New) The method according to claim 97, wherein the method comprises disposing the monitoring portion between the optical emitter and the optical detector, so that the monitoring portion always obstructs some light flow between the optical emitter and the optical detector when the pressure within the infusion set is within a normal range.

99. (New) The method according to claim 97, wherein the method comprises disposing the monitoring portion between the optical emitter and the optical detector, so that the monitoring portion always allows some light to pass unobstructed between the optical emitter and the optical detector when the pressure within the infusion set is within a normal range.

100. (New) The method according to claim 97, wherein the method further comprises limiting the radial expansion of the monitoring portion in at least one dimension, so as to exaggerate radial expansion of the monitoring portion in another dimension.

101. (New) The method according to claim 100, wherein the method comprises placing an abutment member against the infusion set along the monitoring portion.

102. (New) The method according to claim 100, wherein the method comprises placing a jacket around part of the infusion set along the monitoring portion.

103. (New) The method according to claim 97, wherein the method comprises triggering an alarm in response to undesired expansion of the monitoring portion of the infusion set.

104. (New) The method according to claim 93, wherein the method comprises passing the solution through a sample sell which has a triangular cross-section.

105. (New) The method according to claim 93, wherein the method comprises passing light through a portion of the sample cell having walls which are disposed at an angle of between about 47 and 70 degrees so as to refract said light.

106. (New) The method according to claim 93, wherein the method further comprises passing a quantity of light through the sample so that said quantity of light is not refracted or reflected by the contents of the sample cell.

107. (New) A method for forming a feeding set, the method comprising:

selecting an infusion set having an inflow line and an outflow line;

connecting the inflow line to a first connector and the outflow line to a second connector; and

disposing a flow restricting device inside the infusion set.

108. (New) The method according to claim 107, wherein the method comprises selecting at least one of the first connector and the second connector with a flow restricting device formed integrally therewith, so as to selectively prevent flow in the infusion set when the flow restricting device is disposed therein.

109. (New) A method for forming a feeding set, the method comprising:

selecting an infusion set having an inflow line and an outflow line; and

connecting the inflow line to a first connector and the outflow line to a second connector, wherein at least one of the first connector and the second connector has a sample cell disposed therein for monitoring the presence of air bubbles passing through the infusion line.

110. (New) A method for forming a feeding set, the method comprising:

selecting an infusion set having an inflow line and an outflow line; and

connecting the inflow line to a first connector and the outflow line to a second connector, wherein at least one of the first connector and the second connector has an abutment member attached thereto for limiting radial expansion of the infusion set.